

In the claims:

1. (Currently Amended) An array comprising at least one pattern of probe oligonucleotide spots covalently attached to the surface of a solid support, wherein the spots on said array have a density of at least $10/\text{cm}^2$ and each probe oligonucleotide spot of said pattern comprises an oligonucleotide probe composition made up of long oligonucleotide probes that range in length from ~~[[60]]~~ 65 to about 100 nucleotides.
2. (Previously Presented) The array according to Claim 1, wherein two or more different target nucleic acids hybridize to different probe oligonucleotide spots in said pattern.
3. (Original) The array according to Claim 2, wherein each probe oligonucleotide spot in said pattern hybridizes to a different target nucleic acid.

Claims 4 to 7 (Cancelled)

8. (Previously Presented) The array according to Claim 1, wherein each of said long oligonucleotide probes is cross-linked to the surface of said support.
9. (Cancelled)
10. (Previously Presented) The array according to Claim 1, wherein the spots on said array do not exceed a density of $1000/\text{cm}^2$.
11. (Previously Presented) The array according to Claim 10, wherein the spots on said array do not exceed a density of $400/\text{cm}^2$.
12. (Original) The array according to Claim 1, wherein the spots on said array

range from about 50 to 50,000 in number.

13. (Original) The array according to Claim 1, wherein the spots on said array range from about 50 to 10,000 in number.

14. (Currently Amended) An array comprising a pattern of probe oligonucleotide spots covalently bound to the surface of a solid support, wherein the spots on said array have a density of at least $10/\text{cm}^2$ and each probe oligonucleotide spot comprises a long oligonucleotide probe composition made up of long oligonucleotides of from about ~~[[60]]~~ 65 to 100 nucleotides in length.

15. (Previously Presented) The array according to Claim 14, wherein said array comprises ten or more different probe oligonucleotide spots in said pattern, each of which hybridizes to a different target nucleic acid.

16. (Original) The array according to Claim 15, wherein each probe oligonucleotide spot in said pattern hybridizes to a different target nucleic acid.

17. (Original) The array according to Claim 15, wherein two or more probe oligonucleotide spots in said pattern hybridize to the same target nucleic acid.

18. (Previously Presented) The array according to Claim 14, wherein each of said long oligonucleotides ranges from about 65 to 90 nucleotides in length.

19. (Previously Presented) The array according to Claim 14, wherein the spots on said array do not exceed a density of $1000/\text{cm}^2$.

20. (Previously Presented) The array according to Claim 14, wherein the spots on said array do not exceed a density of $400/\text{cm}^2$.

21. (Original) The array according to Claim 14, wherein the spots on said array range from about 50 to 50,000 in number.
22. (Original) The array according to Claim 14, wherein the spots on said array range from about 50 to 10,000 in number.
23. (Previously Presented) An array comprising a pattern of probe oligonucleotide spots of a density of at least $10/\text{cm}^2$ and that does not exceed about 400 spots/ cm^2 covalently attached to the surface of a glass support, wherein each probe oligonucleotide spot comprises an oligonucleotide probe composition made up of long oligonucleotides of from about 65 to 90 nucleotides in length covalently bound to the surface of said solid support.

Claims 24 to 34 (Cancelled).

Claim 35 (Cancelled).

Claims 36 to 38 (Cancelled).

Please enter the following new claims:

39. (New) An array comprising at least one pattern of probe oligonucleotide spots covalently attached to the surface of a solid support, wherein the spots on said array have a density of at least $10/\text{cm}^2$ and each probe oligonucleotide spot of said pattern comprises an oligonucleotide probe composition made up of long oligonucleotide probes that range in length from 60 to about 100 nucleotides and has low non-specific hybridization characteristics.
40. (New) The array according to Claim 39, wherein two or more different target nucleic acids hybridize to different probe oligonucleotide spots in said pattern.

41. (New) The array according to Claim 40, wherein each probe oligonucleotide spot in said pattern hybridizes to a different target nucleic acid.
42. (New) The array according to Claim 39, wherein each of said long oligonucleotide probes is cross-linked to the surface of said support.
43. (New) The array according to Claim 39, wherein the spots on said array do not exceed a density of $1000/\text{cm}^2$.
44. (New) The array according to Claim 43, wherein the spots on said array do not exceed a density of $400/\text{cm}^2$.
45. (New) The array according to Claim 39, wherein the spots on said array range from about 50 to 50,000 in number.
46. (New) The array according to Claim 39, wherein the spots on said array range from about 50 to 10,000 in number.
47. (New) An array comprising at least one pattern of probe oligonucleotide spots covalently attached to the surface of a solid support, wherein the spots on said array have a density of at least $10/\text{cm}^2$ and each probe oligonucleotide spot of said pattern comprises an oligonucleotide probe composition made up of long oligonucleotide probes that range in length from 60 to about 100 nucleotides and have less than 50% homology with oligonucleotide nucleotide probes of any other different probe composition of said array.
48. (New) The array according to Claim 47, wherein two or more different target nucleic acids hybridize to different probe oligonucleotide spots in said pattern.

49. (New) The array according to Claim 48, wherein each probe oligonucleotide spot in said pattern hybridizes to a different target nucleic acid.
50. (New) The array according to Claim 47, wherein each of said long oligonucleotide probes is cross-linked to the surface of said support.
51. (New) The array according to Claim 47, wherein the spots on said array do not exceed a density of $1000/\text{cm}^2$.
52. (New) The array according to Claim 51, wherein the spots on said array do not exceed a density of $400/\text{cm}^2$.
53. (New) The array according to Claim 47, wherein the spots on said array range from about 50 to 50,000 in number.
54. (New) The array according to Claim 47, wherein the spots on said array range from about 50 to 10,000 in number.